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Imagery Analysis Monthly Review

November 1979

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Imagery Analysis Monthly Review

November 1979

The information and judgments presented in this publication were derived principally from analysis of imagery. Although information from other sources of intelligence may be included for background, this publication does not reflect an all-source assessment and has not been formally coordinated within CIA. (U)

Comments and queries on the contents of this publication are welcomed. They should be directed to the analyst whose name and green line extension appear after each article. (U)

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*RUFF***Production Rate of Soviet SS-20
IRBM Sliding-Roof Building
Components Increased** [REDACTED]

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The discovery of previously unidentified SS-20 facilities and a reanalysis of 1979 imagery indicate that the Soviets have increased the production rate of SS-20 IRBM sliding-roof building (SRB) components for the second time since January 1976. The new production rate appears to be one set of SRB components every four working days compared to a previous rate of one every five working days. The Soviets most likely increased the production rate in January 1979, which means a total of 69 SRBs could be produced during 1979 instead of the 54 that would have been produced at the previous rate. If this production rate continues, a total of 300 buildings--the estimated force requirement--could be produced by July 1981, three months earlier than previously projected. The SRB is a specially configured, prefabricated garage that houses the SS-20 IRBM on a transporter-erector-launcher (TEL). It is designed so that the roof can be opened to allow the missile to be erected and launched. [REDACTED]

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The increased SRB production rate became evident when four remote battalion-size SS-20 facilities, each with three SRBs, were identified--one at Drovyanaya and three near Rechitsa. These additional SRBs could not be accounted for if the previous SRB component production rate was still valid. A review of 1979 imagery of the Bryansk Guided Missile Support Equipment Plant II, the only producer of SRBs, revealed that components for two SRBs were produced [REDACTED]

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[REDACTED] Assuming a constant rate of production [REDACTED] the apparent production rate is one SRB every four working days. Considering the timing of the construction of the four remote facilities--early 1978 at Drovyanaya and early 1979 for those at Reschitsa--and other SS-20 base construction, it appears that the Soviets increased the SRB component production rate in January 1979. [REDACTED]

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Gatling Guns for Older Soviet Navy Cruisers

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The Soviet Navy is installing the ADMG-630 gatling gun system on one Kresta-I-class and two Kynda-class guided missile cruisers (CGs) which are undergoing overhaul. The installation of gatling guns on these ships is a continuation of Soviet efforts to equip CGs built during the 1960s with this gun system during overhaul. The gatling gun systems are for close-in air defense and reflect the Soviet concern for the threat posed by low-flying aircraft and surface-skimming cruise missiles, as well as the high value they place on these ships.

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The Northern Fleet-based Kresta-I-class CG Vitse-Admiral Drozd was the first ship of this type to be installed with the ADMG-630 gatling gun system during its three-year overhaul which was completed in 1975. The next CGs to be equipped with this system were two Kynda-class, the Groznyy from the Black Sea Fleet and the Varyag from the Pacific Fleet, which were fitted with gatling gun mounting positions in April and June 1979, respectively. Both ships have been undergoing long-term overhauls since the mid-1970s. The Northern Fleet Kresta-I-class CG Sevastopol, which began a long-term overhaul at Rosta in June 1974, is apparently also receiving the gatling gun system. Although the ship's superstructure is heavily covered with scaffolding, the basic structural supports for the gatling gun system appeared to be in place by August 1979.

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The Soviets have four additional CGs which have not yet received the ADMG-630 system. These four, two Kresta-I-class and two Kynda-class CGs, will probably receive the system during their next overhaul.

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**Two Support Elements for
Soviet SS-20 Mobile IRBM
Regiments Identified** [REDACTED]

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Vehicles of the security force of the SS-20 mobile IRBM regiments and an air separation unit associated with these regiments have been identified on imagery. Each regiment's security force apparently has 16 armored vehicles, 10 BTR-60s and six BRDMs, which are capable of carrying over 150 troops. These vehicles were seen on June 1979 imagery of Postavy Mobile IRBM Base 1 and on October 1979 imagery of Yurya Mobile IRBM Base 1. The security forces could provide ground and limited air defense for the launch units while in convoy, [REDACTED] and perform reconnaissance for the mobile launch units. They may also be used to augment base security when the launch units are in garrison. [REDACTED]

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A two-vehicle mobile air separation unit, the AKDS-30, was first [REDACTED]

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[REDACTED] The AKDS-30, which is designed to produce liquid and gaseous nitrogen and oxygen, was originally used to produce gaseous nitrogen for pressurization of the liquid-propellant tanks of SS-5 missiles. The SS-20, however, is a solid-propellant missile, but gaseous nitrogen may be used to provide an inert atmosphere in the guidance and control section and in the missile canister after the warhead is mated to the missile. [REDACTED]

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Developments in the Soviet Electric Power Industry

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Analysis of imagery shows that the Soviet electric power industry is undergoing a major expansion and is closing the technology gap with the more advanced Western nations in very large thermal turbine-generator units. Currently, the Soviets are developing two immense fuel and energy complexes (TEKs) specifically for electric power generation--one in the Ekibastuz Coal Field in Kazakhstan and the other near Berezovskoye in the Kansk-Achinsk Coal Basin in Western Siberia. Completion of these complexes, which is scheduled for the 1990s, will increase Soviet thermal power generating capacity by approximately 30 percent. In addition, at Kostroma the Soviets have nearly completed installing the first Soviet-designed turbine-generator of comparable size to the largest turbine-generators already in use in the US and Europe.

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Coal from the Ekibastuz and Kansk-Achinsk fields is reportedly not suited for use as coking coal and is not easily transportable because of its high moisture content and tendency toward spontaneous combustion. As a result, the Soviets have announced plans to develop these coal basins by constructing a total of 13 extremely large on-site thermal power plants--five at Ekibastuz and eight at Kansk-Achinsk. They intend to send large amounts of electricity through extra-high-voltage transmission lines to population and industrial centers in the western Soviet Union, a distance of 2,500 to 3,500 kilometers.

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Five major thermal power plants with a combined capacity of 20,000 megawatts (MWs) are planned for the fuel and energy complex at the Ekibastuz Coal Field. Each plant will contain eight 500-MW generating units. Analysis of August 1979 imagery reveals that the first plant may place two of its 500-MW generating units into operation during the first half of 1980. The remaining six 500-MW units are also under construction and, based on the present rate of construction, three will become operational by early 1982 and three by early 1984. No recent imagery was available of the proposed site of the second power plant to confirm recent Soviet radio reports that construction had begun.

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At the Kansk-Achinsk fuel and energy complex (KATEK), eight large thermal power plants with a combined capacity of 51,200 MW are planned. Each plant will contain eight 800-MW generating units. Excavating activity for the first of these plants was under way in August 1979 near Berezovskoye. When complete, it will be the largest power plant in the world. The earliest projected completion date reported by the Soviets for this power plant is 1985, which should allow the Soviets sufficient time to construct the 1,150-kilovolt (KV) alternating current (AC) transmission line needed to transmit the electricity produced at Berezovskoye some 2,500 kilometers to the Urals. Although the Soviets indicate that construction of the 1,150-KV AC line--the first of such magnitude in the world--has already started, a 100-nautical-mile

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search centered on Itat, near Berezovskoye, showed no evidence of its construction. [REDACTED]

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The 1,200-MW turbine-generator unit now being installed at Kostroma will be the largest turbine-generator unit in the Soviet Union. It is likely to go into operation before July 1980. The United States has been operating units which are rated at 1,300 MW since 1974. Presently, the largest turbine-generator unit generating electricity within the Soviet Union is rated at 800 MW. [REDACTED]

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**Locations of Major Electric
Power Plant Development, USSR (U)**



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Chinese May Have Antitank Guided Missiles

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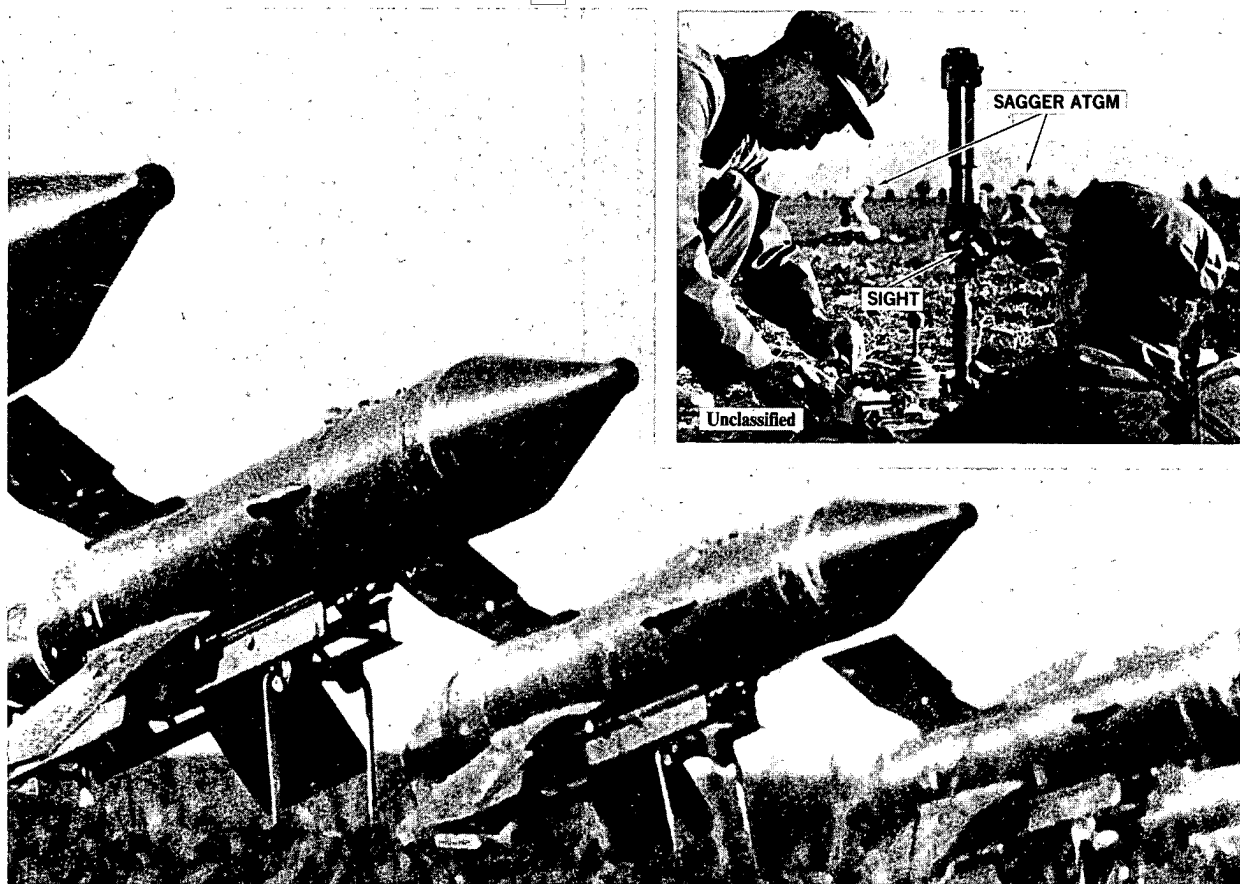
Chinese military personnel using antitank guided missiles (ATGMs) were recently displayed on Chinese television and magazine photography. The ATGMs appeared to be SAGGERS, a Soviet-designed, wire-guided ATGM with a range of 300 to 3,000 meters. If, in fact, these weapons have been operationally deployed, they would substantially improve China's anti-armor capability. However, we cannot determine if they have been deployed because the man-packed version of the SAGGER, the only version displayed in the Chinese media, [REDACTED]

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In early 1979 a Canton television station aired a picture of an ATGM resembling a SAGGER which the Chinese claim they used during the conflict with Vietnam. In September 1979, photographs appearing in a Chinese military publication, the Peoples Liberation Army Pictorial, showed Chinese soldiers aiming and firing ATGMs that appear identical to

**Sagger ATGMs Appearing in the
Peoples Liberation Army Pictorial, September 1979** [REDACTED]

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the SAGGER. [REDACTED]

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China's interest in the ATGMs is almost certainly prompted by concern over the Soviet forces which enjoy a quantitative as well as a qualitative advantage in both tanks and armored personnel carriers. To help offset Soviet advantages in armor, the Chinese in recent years apparently have developed at least two new domestic antitank weapons-- a hand-held antitank rocket and a truck-mounted rocket launcher, similar to the BM-13, that reportedly is designed to disperse antitank mines in the path of an enemy armored column. As with the ATGM, it cannot be determined if these weapons have been field deployed. In addition, the Chinese have expressed interest in the French "HOT" and "MILAN" ATGMs, although no purchase contract for these missiles has been concluded.

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¹The US Intelligence Community does not credit North Korea with the SAGGER ATGM. [REDACTED]

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New OIA Publications

The following reports have been published by the Office of Imagery Analysis since the last issue of the Imagery Analysis Monthly Review.

Imagery Research Paper

1. IS 79-10185K, [] KAMAZ Truck Deployments with Soviet Ground Forces (S), November 1979 (Top Secret RUUFF, []) 25X1
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2. IS 79-10214K, [] Esfahan Petroleum Refinery, Iran (U) 25X1
December 1979 (Top Secret RUUFF, []) 25X1
3. IS 79-10125K, [] Soviet Semiconductor Plants (U), 25X1
November 1979 (Top Secret RUUFF, []) 25X1
4. IS 79-10178J, [] Soviet Naval Presence in Vietnam (S), 25X1
November 1979 (Top Secret RUUFF, []) 25X1
5. IS 79-10150J, [] SS-18 Mod 2 (MIRV) Payload Related Components and Equipment (S), October 1979 (Top Secret RUUFF, []) 25X1
[] 25X1

Imagery Analysis Memorandums

1. IS 79-10191K, [] Repairs at Ras At Tannurah Petroleum Refinery, Saudi Arabia (Top Secret RUUFF) 25X1
2. IS 79-10196, Gasfield Development Near Astrakhan, USSR, Since Mid-1978 (Secret, []) 25X1
3. IS 79-10201K, [] Communications System in the Tiksi-Deputatskiy Area, USSR (Top Secret RUUFF) 25X1
4. IS 79-10183K, [] Soviet Organophosphorus-based Insecticide Production Facilities (Top Secret RUUFF) 25X1
5. IS 79-10204, Oilfield Development Near Karamai, China (Secret/ []) 25X1
6. IS 79-10220, Oilfield Development Near Renqiu (Jen-ch'iu), China (Secret, []) 25X1
7. IS 79-10165K, [] SS-18 Mod 4 Postboost Vehicle Propulsion and Guidance/Control Shipping Container Identified (Top Secret RUUFF, []) 25X1
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8. IS 79-10165K, [] Analysis of Construction at Kuybyshev Aerospace Production Plant 1 (Top Secret RUUFF) 25X1

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9. IS 79-10169K, [REDACTED] Development of the AN-EL-01 Radar 25X1
(Top Secret RUFF [REDACTED]) 25X1
10. IS 79-10150J, [REDACTED], Probable Hydrogen Peroxide Transporter Vehicle Associated With Chinese CSS-1 Fueling Operations 25X1
(Top Secret RUFF [REDACTED]) 25X1
- [REDACTED] 25X1
12. IS 79-10186J, [REDACTED] SL-11 Payload Shrouds (Top Secret 25X1
RUFF [REDACTED]) 25X1
13. IS 79-10188K, [REDACTED] Tall and Standard Type IIIG (SS-19) 25X1
ICBM Silo Headworks (Top Secret RUFF)
14. IS 79-10189K, [REDACTED], Search for Evidence of SA-X-10 25X1
Deployment, USSR (Top Secret RUFF [REDACTED]) 25X1
15. IS 79-10195J, [REDACTED] A Probable SS-20 Mobile IRBM 25X1
Specialized Missile Storage and Maintenance Facility at the
Tambov Missile Support Rear Depot (Top Secret RUFF [REDACTED]) 25X1
[REDACTED] 25X1
16. IS 79-10200J, [REDACTED] Production Support for SA-X-10 25X1
Surface-to-Air Missile (SAM) System (Top Secret RUFF [REDACTED]) 25X1
[REDACTED] 25X1
17. IS 79-10210K, [REDACTED] Unit Analysis of the 31st Army, 25X1
Fuzhou Military Region, China (Top Secret RUFF)
18. IS 79-10207K, [REDACTED] Chinese Antiaircraft Artillery Units 25X1
Upgraded (Top Secret RUFF)
19. IS 79-10202JX, [REDACTED], Soviet Airborne Activity--September 25X1
1979 (Top Secret RUFF [REDACTED]) 25X1
[REDACTED] 25X1
20. IS 79-10211J, [REDACTED], Status of Egyptian Forces in the 25X1
Western Military District March through August 1979 (Top Secret
[REDACTED]) 25X1
21. IS 79-10194K, [REDACTED] Soviet Brigade Activity in Cuba-- 25X1
October 1979 (Top Secret RUFF)
22. IS 79-10181K, [REDACTED] Soviet Export of T-72 Tanks to 25X1
Third World Countries (Top Secret Ruff [REDACTED]) 25X1

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23. IS 79-10179K, [REDACTED], Unit Analysis of the 1st Army, Nanjing Military Region, China (Top Secret RUFF) 25X1
24. IS 79-10177K, [REDACTED], Status of Libyan Military Forces in Eastern Border Region--March through August 1979 (Top Secret RUFF) [REDACTED] 25X1
25. IS 79-10168J, [REDACTED], Unit Analysis of the 11th Army, Kunming (Kun-Ming) Military Region, China (Top Secret RUFF) [REDACTED] 25X1
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26. IS 79-10167K, [REDACTED], Identification of Microwave Antennas in the Shanghai, China Area (Top Secret RUFF) [REDACTED] 25X1
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27. IS 79-10158J, [REDACTED], SWAPO Guerrilla Forces in Southern Angola (Top Secret RUFF) [REDACTED] 25X1
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30. IS 79-10161K, [REDACTED], Photographic Assessment of the An-22 (Cock) Force (Top Secret RUFF) 25X1
31. IS 79-10170K, [REDACTED], Profile of Mountain in Ras Koh Mountain Range, Pakistan (Top Secret RUFF) 25X1
32. IS 79-10171K, [REDACTED], High Explosives Research, Development, and Test Facility Identified at Wah Arsenal, Pakistan (Top Secret RUFF) [REDACTED] 25X1
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34. IS 79-10175K, [REDACTED], P-Class SSGN Appears to be Undergoing Normal Refit and Repair at Severodvinsk (Top Secret RUFF) [REDACTED] 25X1
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35. IS 79-10190K, [REDACTED], Soviet A-Class SSN Activity--March 1978 Through April 1979 (Top Secret RUFF) [REDACTED] 25X1
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37. IS 79-10193K, [REDACTED], Estimated Dimensions of the SS-N-18 Submarine-Launched Ballistic Missile (Top Secret RUFF) [REDACTED] 25X1
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38. IS 79-10198K, [] Identification of Soviet Vehicle-Mounted Laser System (Top Secret RUFF []) 25X1
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39. IS 79-10199K, [], Line of Sight Study, Krasnoarmeysk Probable Laser Development and Test Area, USSR (Top Secret RUFF) 25X1
- [] 25X1
41. IS 79-10213K, [] Update of Criticality Facility at Pelindaba, South Africa (Top Secret RUFF) 25X1

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